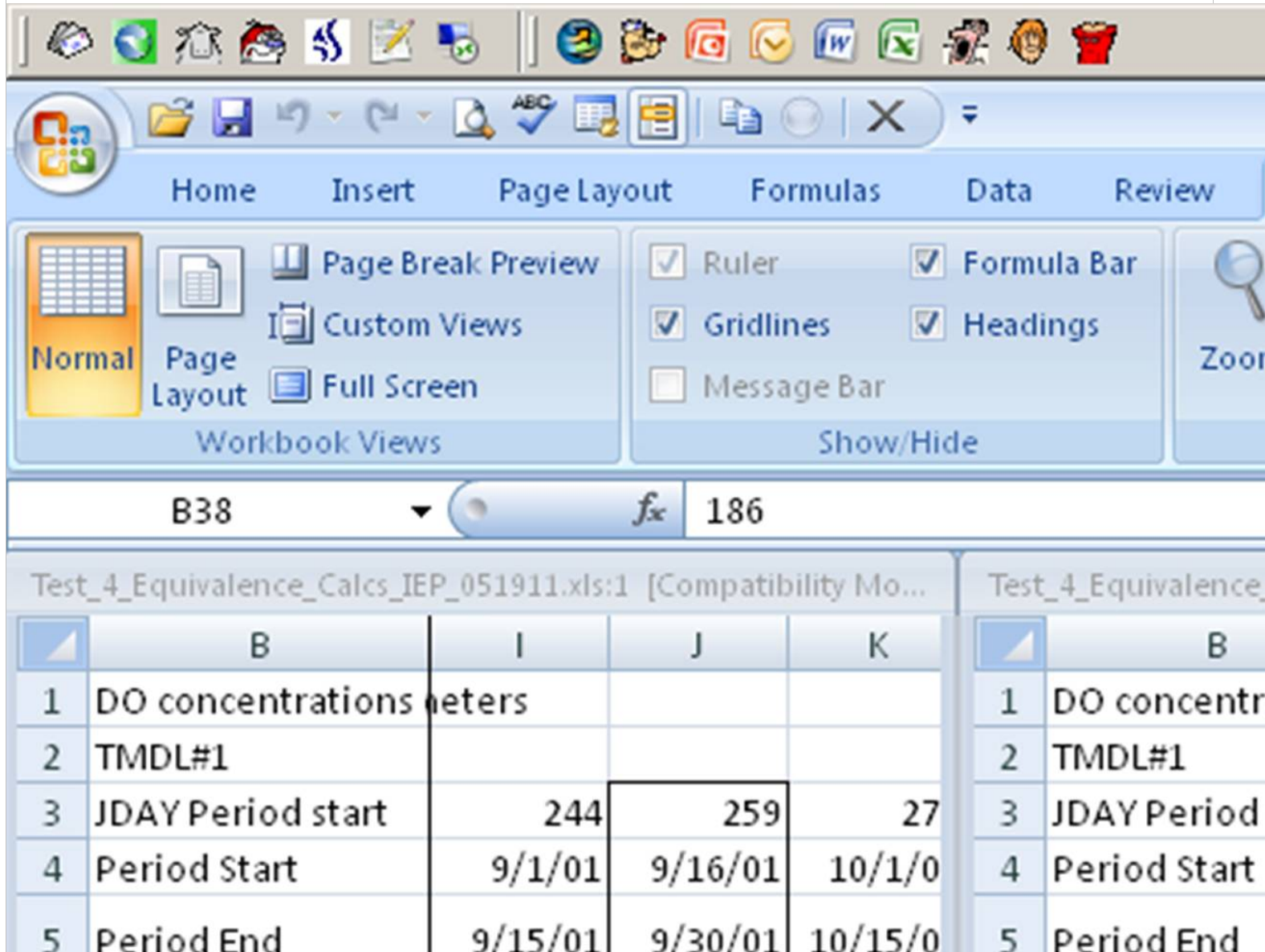**Notes ID:** 8AFEFD90D12398CEC5028792216ABDD3
From: "Hallinan, Patrick J. (ECY)" <PHAL461@ECY.WA.GOV>
To: Brian Nickel/R10/USEPA/US@EPA; Ben Cope/R10/USEPA/US@EPA
Copy To: "Moore, David (ECY)" <DMOO461@ECY.WA.GOV>
Delivered Date: 05/20/2011 09:02 AM PDT
Subject: RE: Additional info needed on latest model results

Brian & Ben,

I went over the spreadsheet, and had a question on the calculations. The spreadsheet gives two TMDL#1 DO values, one from the 'nonoptimized run' in sheet 'TMDL#1 vs IEP'. I'm assuming the other values in the remaining sheets are from the optimized model?

If you look at cell 186, 9/16–9/30, the DO values differ between the two TMDL#1 runs (4.893 vs 4.8876, see below) and the calculations in sheet 'Total TMDL + IEP Delta' use the 4.893 rather than the 4.8876. Why would they use one value rather than the other?

Pat

B38 | | f_x | 186

Test_4_Equivalence_Calcs_IEP_051911.xls:1 [Compatibility Mo...]

	B	I	J	K
1	DO concentrations eters			
2	TMDL#1			
3	JDAY Period start	244	259	27
4	Period Start	9/1/01	9/16/01	10/1/0
5	Period End	9/15/01	9/30/01	10/15/0

Test_4_Equivalence...

	B
1	DO concentr
2	TMDL#1
3	JDAY Period
4	Period Start
5	Period End

33	181	5.5317	6.2378	7.636	32
34	182	5.5209	6.0439	7.473	33
35	183	5.2681	5.6331	7.00	34
36	184	5.3385	5.4952	6.687	35
37	185	5.2746	5.2947	6.345	36
38	186	4.9316	4.893	5.816	37
39	187	4.8983	4.8067	5.519	38
40	188	4.6839	4.5236	5.116	39
41					40
42					41
43					42
44					43
45					44
46					45
47					46
48					47
49					48
50					49
51					50

I◀ ◀ ▶ ▶I   TMDL#1 vs No Source / Avista Resp / TMDL#:   I◀ ◀ ▶ ▶I   Avist

Ready

Ben, Dave:

The actual DO sags (relative to the TMDL) in the three segments where

the final DO rounded to 0.3 mg/L below natural instead of 0.2 are:

Segment 188, July 1 – 15: 0.003 mg/L (tolerance = 0.0008 mg/L)

Segment 188, September 1 – 15: 0.002 mg/L (tolerance = 0.0001 mg/L)

Segment 186, Septmeber 16 – 30: 0.003 mg/L   (tolerance = 0.0014 mg/L)

So, in these instances, DO differences of 2 – 3 micrograms per liter
were enough to tip the balance.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

US EPA Region 10 | Office of Water and Watersheds | NPDES Permits Unit

Voice: 206-553-6251 | Toll Free: 800-424-4372 ext. 6251 | Fax:
206-553-0165

Nickel.Brian@epa.gov

http://epa.gov/r10earth/waterpermits.htm

Please conserve natural resources by not printing this message.

----- Forwarded by Brian Nickel/R10/USEPA/US on 05/19/2011 11:24 AM

From: Dave Dilks <ddilks@limno.com>

To: Ben Cope/R10/USEPA/US@EPA

Cc: "DMOO461@ECY.WA.GOV" <DMOO461@ECY.WA.GOV>, Brian
        Nickel/R10/USEPA/US@EPA

Date: 05/19/2011 10:54 AM

Subject: RE: Additional info needed on latest model results

Two files are attached:

1. Run_05_reservoir_do_results_greater_than_8m.opt: Special output as
generated by model

2. Test_4_Equivalence_Calcs_IEP_051911.xls: Special output pasted into
Equivalence template

Let me know if you have any questions.

-----Original Message-----

From: Cope.Ben@epamail.epa.gov [mailto:Cope.Ben@epamail.epa.gov]

Sent: Thursday, May 19, 2011 1:29 PM

To: Dave Dilks

Cc: DMOO461@ECY.WA.GOV; Nickel.Brian@epamail.epa.gov

Subject: Additional info needed on latest model results

Dave, can you please send us the Excel spreadsheet (with the special DO output for the reservoir) for the model run you just submitted? Thanks.

-BC

Ben Cope, Environmental Engineer

Office of Environmental Assessment

EPA Region 10

Seattle, Washington

206-553-1442

[attachment "Test_4_Equivalence_Calcs_IEP_051911.xls" deleted by Brian Nickel/R10/USEPA/US] [attachment "Run_05_reservoir_do_results_greater_than_8m.opt" deleted by Brian Nickel/R10/USEPA/US]